

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 160792

Thursday, May 04, 2017 10:11:12 AM

160792

Page 2

Item ID: D350-1021-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Safe Access Prop Rod

Start Date: 5/8/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/10/2017 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging					6	DAS 28 9-89		JUN 12 2017
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-1021-011 Location: <u>Eg 019</u>								
140	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		JUN 13 2017
140									
QC	Memo	0.60							
Quality Control									

DAS
21
9-89

JUN 13 2017

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Page 1

Work Order ID: 160792

160792

Parent Item: D350-1021-011

D350-1021-011

Parent Item Name: Safe Access Prop Rod

Start Date: 5/8/2017

Required Date: 5/10/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A 16.04.20 new issue DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-5 *AN4-5* BOLT		Purchased	No			110	Each	14.0000	1	6			
									**	CWB		JUN 06 2017	DAS 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST350			14					
					m136444			14		6			
D5311-041 *D5311-041* Engine Cowl Swivel Prop Rod Assembly		Manufactured	No			110	Each	9.0000	1	6			
									**	CWB		JUN 06 2017	DAS 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST			1					
					141759			1					
					ST359			8					
					155907			5		5			
					158901			3		1			
D5418-1 *D5418-1* Placard		Manufactured	No			110	Each	18.0000	2	12			
									**	CWB		JUN 06 2017	DAS 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST168			18		6			
					155168			6		6			
					158100			12		6			
									3/21/2018				

DQA: _____ Date: _____



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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

Picklist Print

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Page 2

Work Order ID: 160792

160792

Parent Item: D350-1021-011

D350-1021-011

Parent Item Name: Safe Access Prop Rod

Start Date: 5/8/2017

Required Date: 5/10/2017

Start Qty: 6.00

Required Qty: 6.00

AN310-4 Purchased No

110 Each

132.0000

1 6

AN310-4

**

CWB

JUN 06 2017

Nut

Location

Loc Qty

Loc Code

GA

25

M127815

25

ST331

107

M137075

32

M137361

75

DAS
28
9-89

AN970-4

Purchased No

110 Each

166.0000

2 12

AN970-4

**

CWB

JUN 06 2017

Washer

Location

Loc Qty

Loc Code

OVER007

150

m137321

150

ST321

16

m136983

16

DAS
28
9-89

MS24665-155

Purchased No

110 Each

284.0000

1 6

MS24665-155

**

CWB

JUN 06 2017

Cotter Pin

Location

Loc Qty

Loc Code

ST289

284

m129163

284

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		240	
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

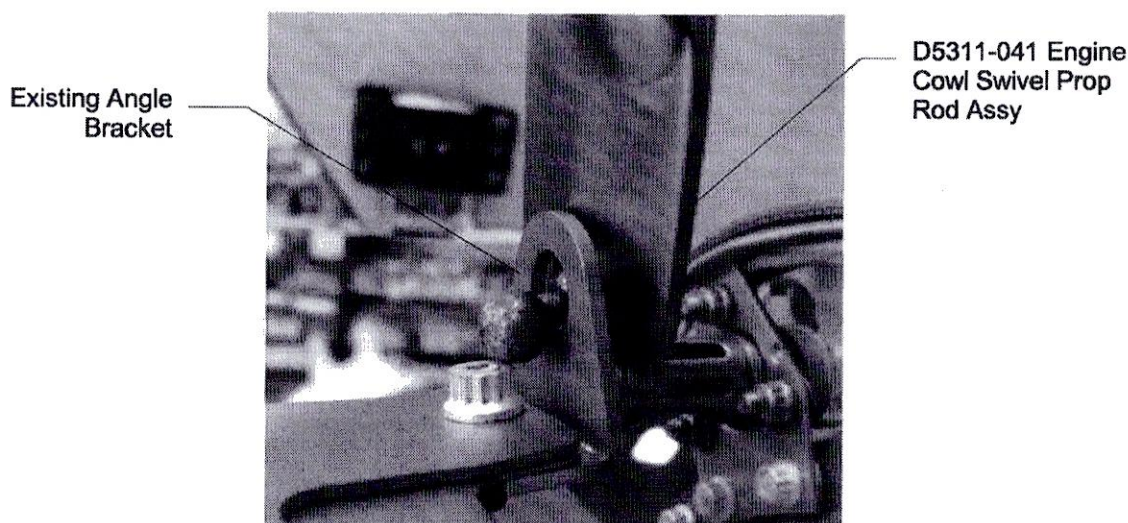


Figure 5: Alternate Prop Rod Mounting Location

4.0 WEIGHT AND BALANCE

The following table shows the net weight increase associated with the D350-1021-011 Engine Cowl Swivel Prop Rod kit.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-1021-011 Engine Cowl Swivel Prop Rod Kit	0.6 lb 0.3 kg	+12.0 in +0.3 m	+7.2 in-lb +0.1 m-kg	163.4 in 4.2 m	98 in-lb 1.3 m-kg

5.0 PARTS LIST

Qty -011	Part Number	Description
X	D350-1021-011	ENGINE COWL SWIVEL PROP ROD KIT
1	D5311-041	ENGINE COWL SWIVEL PROP ROD ASSEMBLY
1*	D3622-15	BALL STUD
2	D5418-1	PLACARD
1	AN310-4	NUT, CASTELLATED
1	AN4-5	BOLT
2	AN970-4	WASHER
1	MS24665-155	COTTER PIN
1*	LN9016-06K	WASHER (ALT: LN9016-06L, 23116TK060X)
1*	LN9161-06M	NUT (ALT: ASN52320BH060N)

* PART INCLUDED IN D5311-041 ASSEMBLY

Work Order ID 160792

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160792

Page 1

Item ID: D350-1021-011

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Safe Access Prop Rod

Start Date: 5/8/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/10/2017 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan: P.L.

Date: 2017/6/1

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

JUN 01 2017

IIN-D350-1021

A

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D350-1021-011 CHG001

CB

⑥

JUN 09 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.18

Quality Control



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH16-19

Issue No.: 1

Approval Date: April 15, 2016

Issue Date: April 15, 2016

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

Airbus Helicopters AS 350 B, B1, B2, B3, BA; EC 130 B4 & T2

Canadian Type Certificate or Equivalent:

H-83

Description of Type Design Change:

Engine Cowl Swivel Prop Rod

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of the Engine Cowl Swivel Prop Rod must be in accordance with Transport Canada Civil Aviation (TCCA) approved Dart Aerospace Ltd., IIN-D350-1021, Revision A, dated March 29, 2016 or later TCCA approved revision.

Maintenance of the Engine Cowl Swivel Prop Rod must be in accordance with TCCA accepted Dart Aerospace Ltd., ICA-D350-1021, Revision 0, dated March 29, 2016 or later TCCA accepted revision.

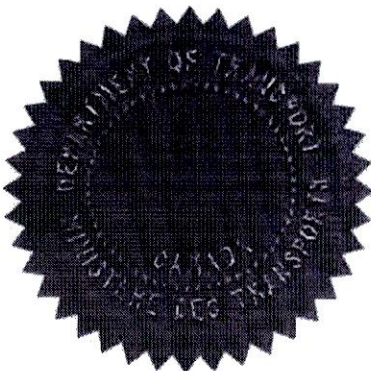
Definition of the Type Design Change:

TCCA approved Dart Aerospace Ltd., Master Document List, MDL-D350-1021, Revision A, dated April 04, 2016 or later TCCA approved revision.

Basis of Certification for affected areas:

AWM 527 at Change 527-3 which is equivalent to 14 CFR Part 27 up to amendment 27-30.

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Loy Y. Liew
For Minister of Transport